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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,748	09/17/2003	Tsutomu Yamaguchi	056272.52748US	2643
23911	7590	08/03/2005	EXAMINER	
CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			QIN, JIANCHUN	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 08/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No.	Applicant(s)	
	10/663,748	YAMAGUCHI, TSUTOMU	
	Examiner	Art Unit	
	Jianchun Qin	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/3/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kumano et al. (5,824,928).

Regarding claim 1, Kumano et al. disclose a keyboard device comprising: keys (20, 30) each opening downward, and having side walls (Figs. 1 and 2), and an abutment portion (the abutment portion shown in Fig. 1 above stopper 52 and the abutment portion shown in Fig. 2 above stopper 56) provided inside said walls, said abutment portion having a lower end located at approximately the same height as lower ends of said walls (Figs. 1 and 2), said keys each performing pivotal downward motion when depressed; and stoppers (52 56) arranged under said keys in a manner associated therewith (Figs. 1 and 2), respectively, for abutment of said side walls and said abutment portion of an associated one of said keys thereagainst (Figs. 1 and 2). The rest of the claim recites functions obviously disclose by the reference.

Regarding claims 2 and 3, the teaching of Kumano et al. further includes: wherein said abutment portion is formed by at least one rib; wherein said rib is formed

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by a plate-shaped rib having a lower surface extending along a plane including lower end faces of said side walls (Fig. 1 and 2, 55).

Regarding claims 4 and 5, the teaching of Kumano et al. further includes: wherein said keys are formed by synthetic resin molded articles in which each key is integrally molded with said rib (col. 4, lines 55-58); wherein said lower surface of said rib is flush with said lower end faces of said side walls (Figs. 1 and 2).

Regarding claim 8, Kumano et al. disclose a keyboard device for a keyboard musical instrument, comprising: keys (20, 30) each opening downward, and having side walls (Figs. 1 and 2), and an abutment portion provided inside said side walls (the abutment portion shown in Fig. 1 above stopper 52 and the abutment portion shown in Fig. 2 above stopper 56), said abutment portion having a lower end located at approximately the same height as lower ends of said side walls (Figs. 1 and 2); said keys each performing pivotal downward motion when depressed; and stoppers (52, 56) arranged under said keys in a manner associated therewith (Figs. 1 and 2), respectively, for abutment of said side walls and said abutment portion of an associated one of said keys thereagainst, wherein said abutment portion is formed by at least one plate-shaped rib having a lower surface extending along a plane including lower end faces of said side walls, and coming into surface abutment with said stoppers (Fig. 1 and 2, 55). The rest of the claim recites functions obviously disclosed by the reference.

Regarding claims 9 and 10, the teaching of Kumano et al. further includes: wherein said keys are formed by synthetic resin molded articles in which each key is

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integrally molded with said rib (col. 4, lines 55-58); wherein said lower surface of said rib is flush with said lower end faces of said side walls (Figs. 1 and 2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumano et al. (5,824,928) in view of Erickson et al. (4,128,035).

Kumano et al. teach the subject matter recited in claims 1 and 4. Kumano et al. do not mention explicitly: wherein said abutment portion is formed by a plurality of ribs.

Erickson et al. teach a keyboard assembly, including an abutment portion formed by a plurality of ribs (Fig. 3, 52 and 53).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Erickson et al. in the invention of Kumano et al. to provide the abutment portion with a plurality of reinforcement ribs in order to make the key more rigid (Erickson et al., col. 3, lines 22-36).

Response to Arguments

5. Applicant's arguments with respect to claims 1-10 received 05/16/2005 have

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been considered but are moot in view of the new ground(s) of rejection.

Claims 1-5 and 8-10 are rejected as new ground has been found from the Kumano patent (5,824,928) to teach the subject matter argued by the Applicant.

Detailed response is given in sections 1 and 2 as set forth above in this Office Action.

Claims 6 and 7 are rejected as new prior art reference (4,128,035 to Erickson et al.) has been found to teach the limitation of an abutment portion formed by a plurality of ribs. Detailed response is given in sections 3 and 4 as set forth above in this Office Action.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianchun Qin whose telephone number is (571) 272-5981. The examiner can normally be reached on 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jianchun Qin
Examiner
Art Unit 2837

JQ 
July 12, 2005


KIMBERLY LOCKETT
PRIMARY EXAMINER